Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

CONDITIONAL MAJOR/SYNTHETIC MINOR PERMIT NO. F-06-024 (REVISION 4)
SUMMIT POLYMERS, INC.
ELIZABETHTOWN KY.
OCTOBER 23, 2008
YELENA GOLDIN, REVIEWER

SOURCE I.D. #:	021-093-00084
SOURCE A.I. #:	38328
ACTIVITY #:	APE20080001

F-06-024 (REVISION 4):
The Division received an application for a minor permit revision from Summit Polymers Inc., on September 18, 2008. The application addresses the removal of the following emission points: EP#06 (Paint Booth #2), EP#08 (Paint Booth #8), and EP#11 (Paint Booth #11). The removal is scheduled for July 31, 2008.

F-06-024 (REVISION 3):
The Division received an application for a minor permit revision from Summit Polymers Inc., on October 8, 2007. The application address the replacement of one injection molding machine, paint type and usage rate changes and the addition of a resin storage silo. The existing 300 ton Injection Molding (IM) press #11, listed under EP03 in the permit was replaced by a 1500 ton IM press. The former unit was a Van Dorn, model: Electric Press. The replacement unit is a Van Dorn model: HP-1500-260, Serial # 0254. The replacement unit will produce finish panels. Section B of the permit has been updated to reflect the replacement of the 300 ton press with the 1500 ton press. The KYEIS has been updated to reflect emission changes at EP03. The application specified a material change at Paint Booth 8. The paint colors used at the booth will be black and camel. The plastic parts coated in the booth will be finish top panels. The KYEIS has been updated to reflect the pollutant emission factors of the new paints and the new usage rates. The application also included a request to add a new PPR resin silo as an insignificant activity. Section C of the permit has been updated to reflect the addition of the silo.

F-06-024 (REVISION 2):
The Division received an application for the replacement of two injection molding machines at the Elizabethtown, KY Summit Polymers facility on January 26, 2007. Additional information was received on March 16, 2007. The replacement injection molding machines will have the same monitoring and recordkeeping requirements as the existing injection molding machines. The injection molding machines are also referred to as presses. One (1) 350-ton press referenced under Emission Point #3 will be removed and replaced with one (1) 400-ton press, a Van Dorn Model #400HT 48F 0401. One (1) 300-ton press identified as IM-21, referenced under Emission Point #12 will be replaced with a one (1) 170-ton press, a Van Dorn Model #170HT8-1152. The KYEIS has been updated to reflect the resin throughput rates and emission factors for pollutants associated with the resins that will be used in the new presses.

F-06-024 (REVISION 1):
The Division received an application for the replacement of two injection molding machines at the Elizabethtown, KY Summit Polymers facility on December 8, 2006. The replacement injection molding machines will have the same monitoring and recordkeeping requirements as the existing

injection molding machines. The injection molding machines are also referred to as presses. Press #8 was previously a Ube 1000T Model #0246 and is now a Van Dorn Model #230-HT-RS-14F-0568. Press #9 was formerly a Van Dorn, 1000T Model #0224 and is now a Van Dorn Model #0400-HT-48F-0401. The KYEIS has been updated to reflect the resin throughput rates and emission factors for pollutants associated with the resins that will be used in the new presses.

SOURCE DESCRIPTION:
Summit Polymers Inc., located at 2201 West Park Road in Elizabethtown, Kentucky was issued permit F-99-01 to construct and operate an automotive parts manufacturing facility on October 12, 1999. The facility produces plastic automotive interior parts including instrument panel clusters, steering column covers and various other plastic parts. The processes at the facility include injection molding of plastic parts, coating of plastic parts in spray booths with water-based paints and infrared oven drying of coated plastic parts.

The Division issued F-99-01 (Rev 1), a Significant Revision to permit F-99-01 on December 12, 2001. This revision permitted the addition of ten (10) injection molding machines, two paint spray booths, new material usage and changes in reporting requirements. The expiration date of permit F-99-01 (Rev 1) was October 12, 2004.

A permit renewal application was received on April 29, 2004. Several emission points were added during the timeframe preceding the submittal of the renewal application but after the issuance of F-99-01 (Rev 1). The Division noted these emission points on the April 6, 2004 inspection. The renewal application addresses the addition of eleven (11) injection-molding machines and the addition of four (4) paint spray booths. Subsequent applications received since the renewal application are: An application received on July 13, 2004 for the addition of an instrument panel paint booth, Paint Booth 11; An application received on January 24, 2006 for the expansion of Paint Booth 3 and the replacement of injection molding press 11. Additional information in regard to injection molding presses, paint booth #2 and insignificant activities was received on June 26, 2006. An application for the removal of the following emission points: EP#06 (Paint Booth #2), EP#08 (Paint Booth #8), and EP#11 (Paint Booth #11) was received on September 18, 2008.

COMMENTS:
EP01, EP02, EP04, EP05, EP06, EP07, EP08, EP09, EP10, EP11, EP13 (Paint Booth #3 Revised): All of the above listed paint booths utilize High Volume Low Pressure (HVLP) spray applicators and are equipped with filters to control PM/PM_{10} emissions. VOC emissions are calculated assuming the entire content of VOC in the paint is emitted. PM/PM_{10} emissions are calculated using a transfer efficiency of 30 percent. The hourly PM/PM_{10} emission rate is determined using a filter control efficiency of 90 percent.

The emission factors for VOC, HAP and PM/PM_{10} are worst case emission factors based on the Material Safety Data Sheets (MSDS) associated with the individual paint booths for paints included in the following applications:

April 29, 2004 Renewal Application: EP07, EP08, EP09 and EP10
July 13, 2004 Application: EP11
January 24, 2006 Application: EP13
April 3, 2006 Additional Information: EP01, EP04 and EP05

COMMENTS (CONTINUED):

June 26, 2006 Additional Information: EP02
September 18, 2008 Application: removal of EP06, EP08, EP11.

The types of parts that are painted in each booth as of the issuance date of this permit are detailed in the table below:

ID	Booth Number	Parts Description
EP01	#1	Lower Centers, Steering Column Covers (SCC)
EP13	#3	Clusters
EP04	#4	Clusters
EP05	#5	Engine Covers
EP06	#6	N/A
EP07	#7	Lid A's
EP09	#9	ABD, Defrost Grills, End Strips, Door Bezels, Upper Centers
EP10	#10	FACL, Infinity, Navigator

Visible emissions from the paint booths are subject to 401 KAR 59:010 § 3(1). Compliance with the visible emission standard requires conducting weekly qualitative visual observations of the opacity of emissions from each paint booth stack and recording the results in a log. If visible emissions from the stack(s) are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of twenty (20) percent opacity, then an inspection shall be initiated of control equipment for all necessary repairs.

The particulate emissions from each paint booth are subject to 401 KAR 59:010 § 3(2). Compliance with the mass emission standard is assumed when the filters are in place and replaced as necessary, determined by daily visual inspections during periods of operation.

EP03 – Fourteen (14) injection molding presses: The emissions from these injection molding presses are based on the Kentucky Emission Inventory Survey and attached correspondence received on March 10, 2005 by the Division. Emissions from injection molding press 11 are based on the January 24, 2006 Application for the replacement of the 450 Ton Engel Canada press with a Van Dorn Electrical press. The emission factors for VOC and volatile HAP are calculated assuming the maximum content of the VOC or volatile HAP in the resin is emitted.

EP12 – Fourteen (14) injection molding presses: The emissions from these injection molding presses are based on the April 29, 2004 Renewal Application and additional information received June 26, 2006. The emission factors for VOC and volatile HAP are calculated assuming the maximum content of the VOC or volatile HAP in the resin is emitted.

Regrind emissions from material processed at EP03 and EP12 are determined assuming 33 percent of each resin processed is reground and that 0.62 lb of particulate matter is emitted per ton of resin processed. This emission factor is based on data in AP 42, Fifth Edition, Volume I, Chapter 11, Table 11.17-4, Emission Factors for Lime Manufacturing and Product Processing and Handling, *Scalping Screen and Hammermill (Secondary Crusher).* Emission factors for metals such as antimony, chromium, manganese and nickel are determined in the following way: Metal EF = 0.62 x (weight % metal in resin/100) = lb Metal emitted per ton of resin.

EMISSION AND OPERATING CAPS DESCRIPTION:
The facility will be subject to emission caps of ninety (90.0) tons per year for VOC, nine (9) tons per year for single HAP and twenty-two and a half (22.5) tons per year for combined HAPS. These emission caps will preclude the applicability of the following regulation: 401 KAR 63:002 (vvv) 40 CFR 63.4480 to 63.4581 (Subpart PPPP), "National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products".

PERIODIC MONITORING:
Periodic monitoring requirements consist of performing weekly qualitative visual observations of emissions from stacks associated with paint booths and recording the results in a log. If visible emissions from the stack(s) are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs. Daily visual inspection of paint booth filters shall be conducted on days when the units are operating and the results recorded in a log. Any maintenance such as replacement of paint booth filters shall be monitored, with the time and date of the maintenance recorded. Records of the filter media purchase and usage shall be maintained. The usage of paints and resins containing VOC and/or HAP shall be monitored on a monthly basis. Records shall be maintained of the twelve-month rolling average and the twelve-month rolling total VOC, single HAP and combined HAP emissions. Annual records of the pounds of resin that is reground shall be maintained.

OPERATIONAL FLEXIBILITY:
The source is not restricted as to hours of operation or quantity of product produced while remaining within the caps above.

CREDIBLE EVIDENCE:
This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.